GRAIN

NOVEMBER, 1943

MORE SUPPLIES FOR PLANTS

Civilian repair shops will hereafter get copper, aluminum and steel, as well as materials and parts, under an OCR order, indicating improvement in supplies of the major controlled materials. Other materials may be purchased in such quantity as are needed for maintenance and repair work. Special provisions are made for those specializing in industrial repairs.

No Flat Rate Applicable

WLB will not grant a wage increase to workers in a plant in one area in order to bring those wages up to levels paid in another area.

PUBLICATION PAPER CUT 15%

Because of depleted inventories of wood and pulp, along with a dozen or so other reasons, magazine and periodical publishers are to be cut an additional 15% in paper tonnage effective Jan. 1, 1944. Better send in a few years' subscription and be sure of getting your favorite magazines, including this one!

Schedule Vacations Throughout Year

ODT asks that employers schedule vacations throughout the year, and in such a way as to avoid travel over week-ends and at holiday periods. All journeys from Dec. 17 to Jan. 11 should be postponed.

MORGENTHAU THANKS "GRAIN"

I want you to know that the Treasury Department is deeply appreciative of the generous and patriotic co-operation displayed in helping to make the 3rd War Loan drive the greatest financial undertaking of all time, Henry Morgenthau, Jr., wrote "GRAIN," under date of Nov. 6th.

WPB REVISES L-41

WPB's Conservation Order L-41, Part 1075, "Construction," makes the following changes, effective Nov. 1:

1. No longer any monetary limit on actually needed replacements and repairs.

2. Can proceed with replacements and repairs, without WPB authority, if can get material needed without priorities.

3. $1,000 is now new top for a new building or group of new buildings which will be used for warehouse or for off-farm storage purposes.

4. $5,000 is now the new top limit for a factory, plant or other industrial unit which is used for the manufacture, processing or assembling of any goods—except that the limit is $200 if the goods are listed on Schedule A or if the productive floor area of the unit upon completion of construction is less than 10,000 sq. ft. The limit for any other kind of construction begun in the same year is $200.

5. WPB permission is unnecessary for maintenance and repair (1) to keep a building or structure in sound working condition, (2) to fix it when it has become unsafe or unfit for service because of wear and tear, (3) to prevent more damage to a building or structure, or its contents, which has been damaged by fire, flood, tornado, earthquake, acts of war, or the like (including the minimum of labor), (4) for changes in material, and (5) for construction necessary to prevent threatened loss of farm products where immediate construction is determined by the USDA to be essential to the agricultural program.

The above figures are the limits for all jobs begun in the same year. Additions, structural alterations, completion of unfinished parts of buildings, rebuildings and restoring, etc., are covered in detail under (d)-(1). Regional WPB offices may now process new construction up to $10,000.

Helps Iron Out Wrinkles

We are processors of soybeans and flaxseed and find many articles of interest concerning this field in "GRAIN," oftentimes helping us to iron out the wrinkles which invariably present themselves.—Russell B. Millburn, Supt. of Grain Elevators & Flour Milling, Honeymead Products Co., Cedar Rapids, Ia.

B·U G S

Get Shocks Of Their Lives

EDWIN D. TILLSON

TESTING ENGINEER AND INVESTIGATOR FOR THE UTILITIES RESEARCH COMMISSION, DEMONSTRATES THE EFFECTIVE, DEATH-DEALING INFRA-RED AND HIGH-FREQUENCY APPROACH TO YOUR INFESTATION PROBLEM; DISTRIBUTES "EXPOSED" BUGGY SAMPLES AND CHALLENGES REJUVINATION; FASCINATES AND INTRIGUES 171 ATTENDING MONTHLY CHICAGO CHAPTER, SOCIETY OF GRAIN ELEVATOR SUPERINTENDENTS MEETING EARLIER THIS MONTH

Considering the intense and widespread interest in this subject as manifested by the record-breaking attendance at and the avalanche of queries presented after this meeting, Mr. Tillson agrees to answer further questions addressed to his attention at 2233 S. Throop Street, Chicago. Visitors desiring to observe the operation of this equipment and to discuss their infestation problems with Mr. Tillson are cordially welcome.

THEY say there is nothing more sure in life than death and taxes. They must have forgotten about the bugs. The Department of Agriculture lists 335 separate species of insects that infest stored grain and cereal products in this country.

As far back as 1937 it was conservatively estimated that the damage caused by insects in stored grain and grain products amounted to at least $300,000,000 annually—and this was before the days of the "tin cans." As larger quantities of foodstuffs are stored over increasingly longer periods of time, the expectation is that this problem will grow rather than diminish.

I am sure everyone hopes and looks forward to the day when we will be completely rid of these pests in the grain and end-products, also in the premises where this material is stored and processed. We know that great efforts and a lot of money have been expended toward this end, such as turning, cleaning, cooling, fumigating, collision, centrifugal action, and just good housekeeping. All of these are desirable and from what the utility men know of the business, will all be more extensively used as time goes on.

Complete Sterilization Electrically

THE purpose of this paper is to call attention to still another method, namely, the electrical method. We do not wish to create the impression that this new idea will do away with any of the means now in use. We certainly could not expect to duplicate the fumigation of an entire elevator or mill or even spot-fumigation of these plants.

The fact is that what we have to demonstrate bears no relation whatever to the fumigation of mills, terminal elevators, country elevators, farm storage bins, warehouses, tin cans, or any other premises where grain or foodstuffs are stored. So far as we know, fumigation will always have to be resorted to in these places, and we would expect to see more and not less fumigation used in the future, and more widespread and intelligent use thereof.

On the other hand, we do claim this —that we can take any given quantity of grain or processed material, no matter how badly infested, and completely sterilize that grain, cereal, flour, feed, seed, soybeans, starch, meal, malt, or whatever it happens to be, in one treatment, so that it can be stored with good material or shipped out with the assurance that it is completely sterile. In other words, this is a method which kills all four life stages of the insects, and without injury to the product, whatever it is.

Only Four Major Pests

GETTING back to the insects themselves, while it is true that the Department of Agriculture lists over 300 families of insects, yet so far as grain in storage or in shipment is concerned, most of the damage is done by just four families of insects. In this connection I quote from Bulletin 1260 as follows:

These four insects are the granary weevil, the rice or black weevil, the lesser grain borer or Australian wheat weevil, and the Angoumois grain moth. If grain in the unbroken kernel remains unaffected by the four insects mentioned, it is not likely, in commercial storage or shipments, to be sufficiently affected by other insects to cause appreciable loss.

The secondary pests are for the most part surface feeders in both adult and larval stages. Most of them are found feeding upon grain dust or broken surfaces of kernels exposed either by mechanical injuries to the grain in handling or by the feeding of the four primary grain pests with which they are usually associated.

With the exception of the lesser grain borer, the larvae, or grubs, of the primary pests mentioned are not ordinarily capable of a free existence outside the kernel. They live entirely within the kernel, where they feed unseen and usually unsuspected. They cannot be removed by ordinary cleaning machinery and must be controlled by other means.

As regards flour, bran, feeds and packaged cereals, we have the flour

BEFORE

IT TAKES

SURFACITE

AND YEARS OF ENGINEERING EXPERIENCE

TO DO THE JOB

100% RIGHT

. . . . . and 100% **RIGHT** is the *only* way you want your tanks waterproofed. A quick, slap-on "trick" paint job that washes off after a severe season or two will give you neither satisfactory protection nor will it prove worth a fraction of its cost. Such intolerable work isn't worth a second thought.

No sir, knowing how important it is to keep your elevator watertight, its contents shielded from the ravages of nature, you want the cracks in your tanks chipped out clean—properly reinforced and patched with a pliable mastic to accommodate tank movements in the future . . . You want the surfaces of your tanks prepared for expert "surgery" with precisely the same care that a leading specialist would prepare a patient for a highly delicate and important operation.

GUNITE

And parallelly, you want the best surgery—whether it be for a minor or a major operation. That's why you'll want **GUNITE** —tougher than the hide of a rhinoceros —to seal repair work. That's why you'll wish to specify **"SURFACITE"**—our elastic surface coating many times the thickness of ordinary waterproofing—preferred because it compensates for tank movements. That's why you will always demand years of skilled engineering experience such as you get only from . . .

AFTER

Charles F. Walker, Superintendent of Archer-Daniels-Midland Company's "Burlington" Elevator in Council Bluffs, is mighty well pleased with the water-tight job he got using **GUNITE, "SURFACITE,"** and our proven methods of properly restoring aging concrete—as he will gladly tell you in answer to your inquiry about the advisability of having your rehabilitation work done satisfactorily by...

20 N. Wacker Drive **JOHN D. BOLTON & CO.** Chicago 6, Illi

beetles of the genus Tribolium, variously known as the confused flour beetles, red weevils, bran bugs, rice flour beetles, etc. Quoting again, and this time from U. S. Dept. Agricultural bulletin No. 498.

Flour and other prepared products frequently become infested with small, reddish-brown beetles known as flour beetles. These beetles, although very similar in size and appearance, belong to the different though related genera "Tribolium." Of these, by far the most abundant and destructive are the confused flour beetle and the rust red flour beetle.

These insects are very hardy and able to subsist on any of a wide variety of foodstuffs, and through a world-wide commerce have been transported to regions which otherwise they might never have reached. Thus there are today not only records of their occurrence but numerous references to their destructiveness from practically every civilized country in the world.

Now it has been known for a number of years that all of the insects we have mentioned, and many others, are affected by temperature, and that if raised to a temperature between 130 and 140° F. their proteins are coagulated to a point where life is destroyed. This was demonstrated by Thomas J. Headlee, Entomologist of the New Jersey Experimental Station, back in 1931, by J. H. Davis of the Baltimore & Ohio Railroad in 1932, and others.

Eggs Hatch in 4½ Days at 95° F.

FOR example, Doctors Thomas and Sheppard found that with the sawtooth grain beetle, if the temperature of the eggs were raised to 104° F. or lowered to 59° F. they would not develop, whereas at 95° F. the greatest rate of development occurred—or the eggs hatched in 4½ days. But, at some point between 130 and 140° F. all four life stages of the insects are

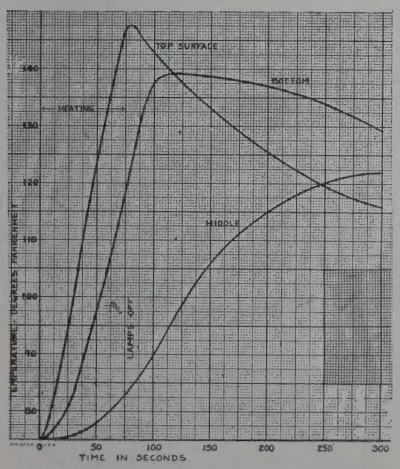


Figure 1—Heating of wheat by infra-red energy. Grain depth one-half inch. Ambient temperature 75°F. Grain surface left uncovered throughout test. Note insulating effect as shown by slow rise of middle stratum.

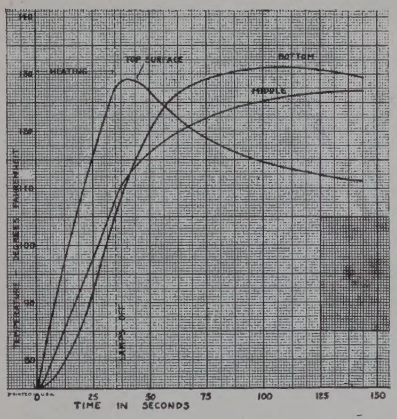


Figure 2—Heating of wheat by infra-red energy. Grain depth one-quarter inch. Grain surface left uncovered throughout test. Compare with Figure 1 and note closer grouping of temperatures in various strata.

completely destroyed. I wish to quote from Department of Agriculture Bulletin No. 1880 as follows:

Exposure of the grain to high temperatures kills the insects that infest it. A temperature of 140° F. for 10 minutes is fatal to all grain-infesting insects that are actually exposed to it.

An air temperature of 180° F. is considered as the maximum allowable temperature for drying wheat without injury to the milling and baking qualities, and unless the temperature can be accurately controlled it is advisable to operate at a slightly lower temperature. This is especially true if the grain is high in moisture content. Tests have shown that the germination of wheat, rye, oats, and buckwheat apparently was not impaired by artificial drying with heated air at 120°, 140°, or 160°.

There is one important point in what I have just read, and I will read it again—"A temperature of 140° F. for 10 minutes is fatal to all grain infesting insects that are *actually exposed to it.*"

For example, you can heat grain any number of ways. You can build a fire under it, or put it on a stove or in a convection oven or kiln, or you can heat it with wood fuel, coal, gas, steam, oil, or electric strip heaters. All of these are what would be called surface heating. A characteristic of this form of heating is that first you must heat up the walls of the oven, then the air in it, then the container for the grain, and finally the grain itself, starting with the outside layers *and trusting that with enough turning of the grain, or by spreading out in thin layers, all portions of the material will attain the same killing temperature.*

There is still another method of heating grain or grain products and that is by the use of infra-red energy, otherwise known as radiant energy, and I would like to say a few things about this form of heating. In the first place it acts instantaneously on the material to be heated. None of the other forms I have mentioned do this. In other words, with infra-red we *project* the heat or the energy *directly and instantaneously* from the source to the object. We do not need to heat up the walls of the enclosure, or the air in it, or the container. We heat the object first. Later on some of this heat may be given off to the surrounding air, but this is incidental. Again, with infra-red heating we do not confine the dust or vapors that may be present, but can draw them off with the surrounding air without affecting the heating process, thus keeping dust concentration at a low point.

Wavelength A Factor

THERE is the final point of wavelength as affecting the penetrating power of the energy delivered. With convection heat the bulk of the energy is in relatively long wavelengths, say, from 80,000 to 200,000 Angstrom* units, whereas with infra-red the bulk

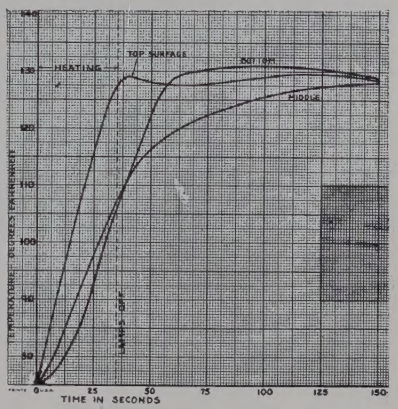


Figure 3—Heating of wheat by infra-red energy. Grain depth one-quarter inch. Test tray covered after conclusion of heating period. Compare with Figure 2. Note close grouping at end of test resulting from absence of top surface cooling.

of the energy is at wavelengths from 4,000 to 30,000 Angstrom units. [*Angstrom Unit = approximately ¼ billionth of inch.] It is known that with moisture films, for example, the penetration of these relatively short wavelengths is appreciably greater than with what we might call stove heat.

Whether the same is true with the outer layers of the grain berry is not definitely known, but it is suspected that in the case of the advanced larvae stage, where a considerable portion of the berry has been consumed by the grub, that the shorter wavelength is able to penetrate the remaining husk more readily than the longer wavelengths represented by convection heating.

In any case, the penetrating power of infra-red is not great and if we use this method the grain must be spread out in a fairly thin layer. For example, we first tried out a layer ½ inch thick, and curve sheet No. 1 shows you

just what happened. We next tried a ¼ inch layer of material and curve sheet No. 2 shows quite an improvement, but the result is still seriously off.

We next tried to prevent the top surface of the grain from cooling down while the bottom and middle layers came up to the proper temperature. The way we did this was to heat from above and below for 35 seconds, and then slap a metal cover over the wheat, preventing dissipation of heat to the outside air. In actual practice the cover is in place all the time and the grain merely moves underneath it on the belt. The result is seen in curve sheet No. 3 which shows that the problem was nicely solved.

U. S. Bulletin 1880 states this temperature must be maintained in the wheat for ten minutes. This presents no problem in actual practice because as the heated wheat falls off the delivery end of the machine it would go into a hopper or bin and the hot wheat continually falling into this hopper would maintain the temperature for the layers below for at least this length of time.

700 "Tunnels" Now in Use

ILLUSTRATION No. 4 shows an infra-red tunnel based on the foregoing experiments. Some 700 of these tunnels have been installed in the City of Chicago during the last three years —not exactly like this grain tunnel we have here, but similar. They are used for all sorts of purposes, from curing paint on hairpins up to expelling hydrogen from the brass in artillery shells. The grain and milling industry has started to use them also.

The heating unit in this machine is a lamp called an R-40 reflector drying lamp, which has a life anywhere from 12,000 to 20,000 hours. It carries its own reflector of sputtered aluminum which is sealed in. Four of these lamps would cost about 1 cent per hour to operate under ordinary industrial power rates.

The lamps are placed above and below the belt, as you see here. They are on 4½ inch by 6 inch centers. The upper lamps are 6 inches from the grain and the lower lamps 4½ inches. This tunnel represents a load of 26 kilowatts and a capacity of about 60 bushels per hour.

We have a design for a 270 bushel per hour capacity tunnel which is being considered by one of the processing plants in the Chicago area. That machine has a 4 foot wide steel belt. It is 15 feet long, and the electrical capacity is 135 kilowatts. The cost of treatment works out at about ½ cent per bushel.

One unit of this size would treat a car (pre-war loading) in somewhat over 5 hours. Several of these banks could be operated in parallel so that a carload might be treated in one hour or less.

This equipment which we show you

here is quite simple in construction. We know that it can be built by a smart millwright from designs furnished, possibly by the utility. The truth is that the great majority of infra-red tunnels in Chicago have been built just that way, that is, the user purchases the lamps and the wiring bars already wired up, but builds the tunnel himself. He then calls in a wiring contractor to connect the machine and furnish the cabinet and switches. On the 270 bushel machine, we figure that the purchased material would come to $600 with about $1600 for millwright and wiring labor and incidental material. In addition to this, a room would have to be set aside for the equipment and this room would need to be exhausted to the outer air by a suitable blower.

Would Treat As Received

NO DOUBT these capacities of 200 to 300 bushels an hour sound pretty low to some of you, particularly those connected with terminal elevators with capacities up to millions of bushels. But as we see it, there is only a certain percentage of grain coming into an elevator, mill or processing plant that would require this sterilizing, depending to a large extent upon the part of the United States we are talking about. We are advised by elevator operators that so far as their machinery layout is concerned it could be adapted to 200-300 bushels per hour flow in the case of a badly infested car of grain, which we will suppose would be treated in a few hours—and with the assurance that the treated grain could be placed directly in the proper bin classification along with good grain.

Someone has suggested that equipment of sufficient capacity to handle a car in an hour's time or so might be located at a central point in Chicago and utilized by a number of elevators or processors. I suppose they mean by this, a separate business, which would charge so much per bushel for handling and sterilizing carloads of grain. So far as the mill is concerned, it has been suggested by those in the business that this equipment might be put ahead of flotation washers and that whatever money was spent in the sterilization would be offset by the expense which must be incurred anyway in raising grain to the tempering point.

Many people ask if it is not true that heating the grain has an injurious effect on it. You will recall the statement quoted above, that a temperature of 180° F. is considered allowable and results in no injury to the milling and baking qualities. Also, that germination was not affected up to 160° F. We desired to check this and similar statements, and therefore heated a number of 5-pound samples from the same lot of dark hard winter wheat to the following temperatures, namely, 132, 138, 146 and 157° F. We maintained these temperatures for 10 minutes. The four samples, together with one untreated sample, were submitted to the B. A. Eckhart Milling Company's laboratory for baking tests. No difference in baking qualities among the five samples was found.

Now about germination. Samples were heated to various temperatures up to 150° F. and germination tests were made using the regular sprouting procedure. The viability of treated and untreated samples from the same batch of grain was unaffected.

About moisture content, a number of samples were weighed before treatment in which a temperature of 135° F. was attained. They were reweighed after cooling to room temperature and the average loss in weight was found to be less than ¼ of 1%. Sustained heating followed by aeration will result in some moisture loss. In infested grain this is an advantage because insect activity and spontaneous heating in storage are promoted by excessive moisture content.

As regards rancidity, it is believed that continuous high storage temperatures tend to fat rancidity in the grain, particularly lower grades of grain, but that rapid cooling to ordinary temperatures after heat treatment prevents any measurable increase.

Some operators bring up the possibility of fire hazard in connection with these tunnels. As previously stated, we would expect this equipment to be operated in a separate department and this room could be exhausted, if necessary. As a matter of fact, we have tried in various ways to ignite dust by dropping it on the upturned faces of these lamps—and have been unable to do so in every case! Perhaps the best answer to this is the fact that these tunnels are already in use in several mills and the operators do not seem at all alarmed over any explosion possibilities.

Offhand one might believe this equipment presented quite a hazard, but the only important source of concern is the quality of the installation. Of course this is true with anything electrical around a flour mill or eleva-

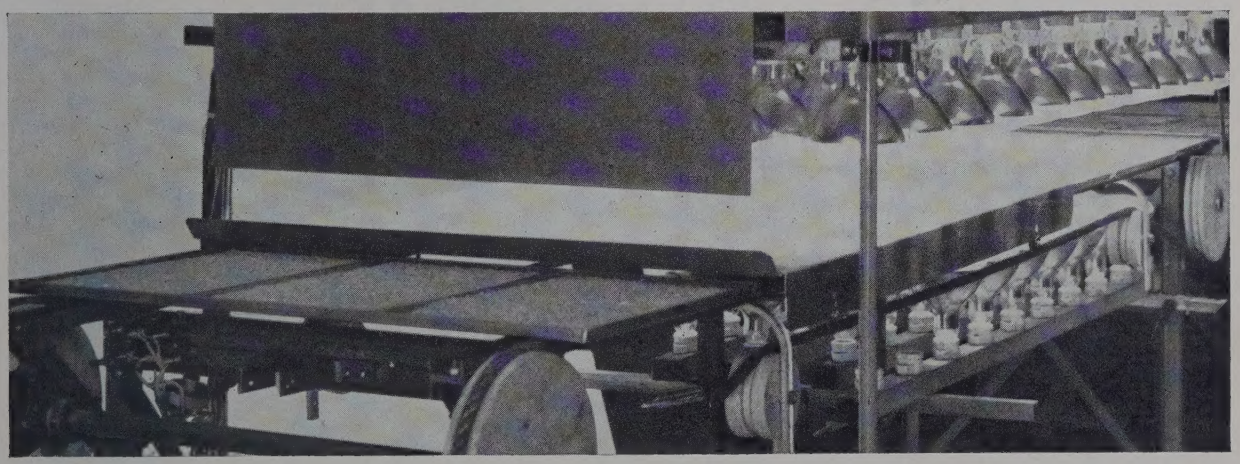


Illustration 4.—Small Infra-Red Grain Tunnel. Equipment of similar design is available for treating 270 bu per hour. The floor space occupied would be 4 ft. by 15 ft. Several of such units may be operating in parallel in order to treat a carload of grain products in an hour's time.

Chemical Constituency Unchanged

TO DETERMINE the effect of temperature on vitamin content, several samples of wheat were treated at various temperatures for 10 minutes, namely, from 130 to 160° F. These samples were then submitted to the Arcady Farms Milling Company's laboratory. Their report showed that the micrograms of thiamin per 100 grams in the treated samples ranged from 400 to 515, whereas the untreated sample showed 430. The summary of the report states—"All amounts found are above that normally found in whole wheat and the loss, if any, due to heating is not significant."

tor. I happened to grow up in a town where there were a number of flour and cereal mills. Some of the things that I saw in those days, such as exposed lamp bulbs, wiring, switching etc., would make my hair stand on end today, and yet in the 20 years I lived in that town, there was not a single dust explosion.

Dielectric Method Penetrates Uniformly

SO MUCH for infra-red heating. The next subject is dielectric heating. As explained to you, if infra-red is used the grain or flour or whatever it is must be spread out in a thin layer. But with the dielectric or electrostatic heating method we can heat masses of material up to 1 foot thickness and heat every particle of the grain or whatever it is to exactly the same temperature—and we can do this in a matter of seconds. This is the only heating method in existence that will do such a thing.

I think most of you have heard of fever machines or electric-diathermy outfits—you know the kind that you grab with your hand and you feel the heat all through your body. Really what you have hold of is a miniature broadcasting station—and a broadcasting station is essentially an electric oscillator hitched to an antenna. The oscillation is set up in a "tank" circuit, as it is called, which is simply an induction coil and capacitor in parallel, and you put the wheat or whatever it is between these two plates and this then becomes the capacitor or condenser in the circuit. You can heat wood, leather, felt, or you can put peanuts, coffee, hamburgers, or anything you want between these plates and you will heat them through and through, and very quickly.

Molecular "Stresses" Generate Heat

JUST exactly what happens to the molecules of the material is not definitely known, but it is believed that a part of the heating comes from molecular stresses set up by the very rapid alternation of the electric field —which in this case occurs at about 10,000,000 cycles per second. Hence we have the other name for this type of heating—high frequency.

It has been claimed by some that there is a differential effect between insects and the grain or flour in which they occur, and it would be possible to heat up the insects without heating the surrounding mass of material. This would be a wonderful thing if true. We were disposed to believe it for a while but later on we made a series of tests which appear to disprove this theory.

In other words, the rapidity of heating for any given frequency and potential gradient depends upon the conductance of the object treated. If at any given frequency the conductance of the insect became appreciably higher than that of the surrounding material, then differential heating would become a possibility.

We were able to establish conductance curves on quite a number of cereals and insects. These curves keep rising with the frequency, but in all cases the curves were of a smooth continuous type and no bumps occured that were at all indicative—that is, up to 30 megacycles—which is believed to be the upper practical limit for a number of commercial reasons.

This type of heating has real significance for the processors of grain, particularly those manufacturing packaged goods, inasmuch as we can take packaged material, package, label and all, in which there may be eggs or larvae or even adult insects, and pass them between these plates (see illustration No. 5) and they will be completely sterilized in a matter of from 20 to 30 seconds. As we all know, considerable difficulty has been experienced with such items as whole wheat flour, pancake flour, bran products, etc., on which the shelf life is limited and where returned goods and customer complaints have been a problem. By the use of dielectric heating, the manufacturer would be assured of a sterile package in all cases.

Costs Per Unit Insignificant

NOW let us see how much this is going to cost. Assume each one of these are 1 pound packages and a specific heat of 0.4 for the cereal. Then we have to raise the temperature of this material from 80 to

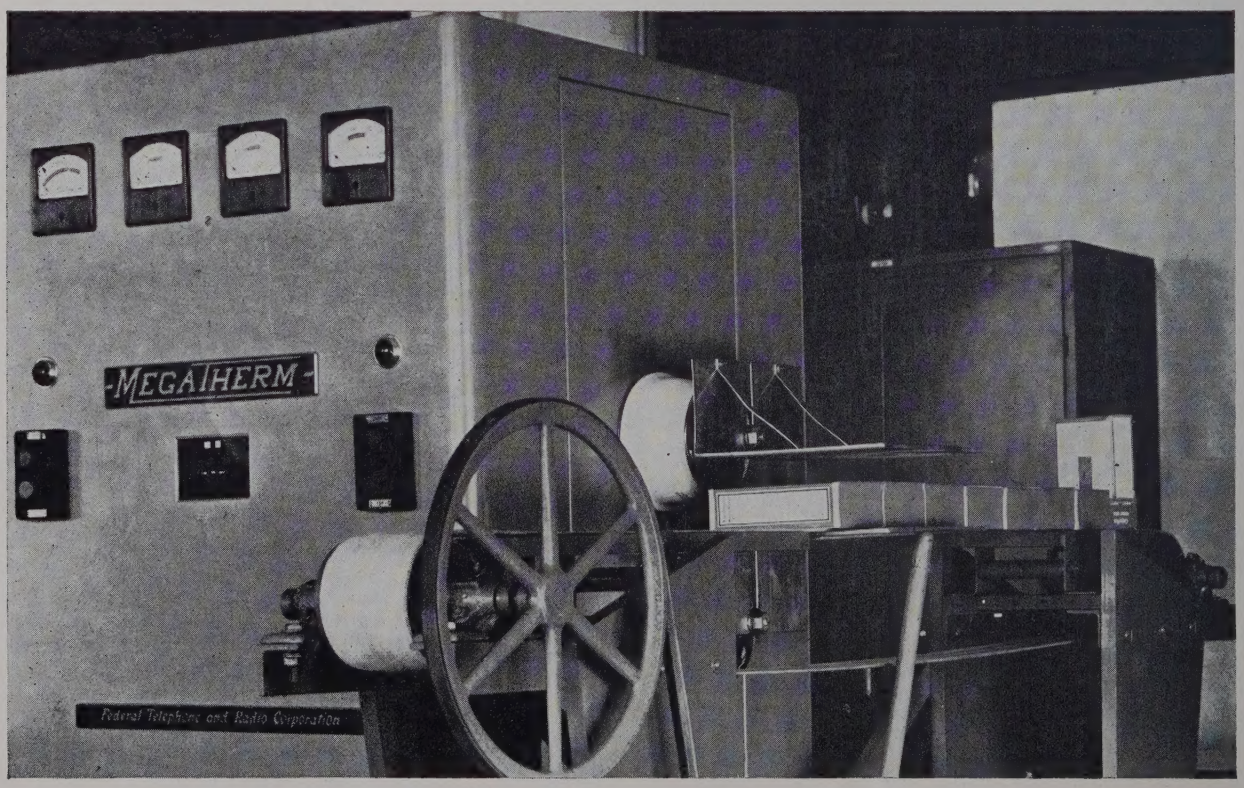


Illustration 5.—Dielectric Heating Apparatus set up to treat packaged cereals. The power cost is approximately 15/1000 cents per package of ½c per case.

WE USED *Elevators*

FOR TEST TUBES

Rigid *laboratory tests* are essential to determine the *quality* of basic chemicals employed in the manufacture of a grain fumigant and to maintain uniformity.

But, the safety, effectiveness, dependability and cost of a fumigant in *actual use* can be accurately ascertained only through exhaustive tests embracing masses of grain treated under typical storage conditions involving dust, chaff and differences in temperature in infested bins which cause variations in diffusion, penetration and absorption.

Yes, we used elevators for test tubes and thereby demonstrated that Weevil-Cide can be depended on for satisfactory results . . . sound economy . . . utmost in safety when applied as recommended.

THE *Weevil-Cide* COMPANY

THE DEPENDABLE GRAIN FUMIGANT

1110 HICKORY STREET
KANSAS CITY, MO.

TO CHOICE OF THE GRAIN TRAD

140° F. The Btu required, therefore, is 60. x 0.4, or 24 Btu. A particular machine we have in mind is rated at 6 kw. input and 3 kw. output, (see illustration No. 5). Now there are 3412 Btu per kw. hour, so in an hour's time this machine would deliver 10,-236 Btu. In other words, it would take care of about 400 1-lb. packages per hour.

If this machine were in a mill which had a 1-cent energy rate, the cost of running it for an hour would be 6 cents. Therefore the energy cost per package would be 15/1000ths of a cent or it would cost ⅓ cent per case. There are some other incidental costs such as tube replacements, etc., but one of the larger processors who is interested in this figures the total cost at ½ cent per case. I do not know what the processor gets for this material. I do know that if you go out to buy these packages at a chain store you pay up to 25 cents a package, or at the rate of $6.00 per case. The cost of this equipment is but $3000 net. One of them would ordinarily take care of one production line.

There are a few things about this equipment which must be kept in mind. One is that a cotton belt must be used at this point in the production line. Also, it is better for the labeling to be done after the package is treated, since the wet glue introduces a little problem. Otherwise the equipment is as you see, pretty well worked out and commercially available. The same type of machine could be used for treating returned bags, returned flour, or placed in the mill stream at any point that is desired. It is also useful for sterilizing seeds, feeds, malt, soy beans and a great variety of dry foodstuffs.

Speaker: "I have lived in this town all my life. By actual count there are fifty-five tap rooms and saloons in the town, and I am proud to say I have never been in one of them."

Voice: "Which one is that?"

Jimmie: "What is middle age, Dad?"

Father: "Middle age, my son, is that period in a man's life when he'd rather not have a good time than have to get over it."

How to Request Occupational Deferment for an Employee

REQUEST for occupational deferment must be made by filing with the Local Selective Service Board an Affidavit for Occupational Classification (Industrial) on D.S.S. Form 42 A (Revised 9-15-42).

Each case should be prepared with great care. Be sure to give complete detailed information to show (a) the essential nature of the activity in which the employee is engaged, and (b) why the registrant is a "necessary man" in that activity. The employee's duties should be described in detail. Evidence must also be included to show the degree of training, skill and experience required, and what efforts have been made to obtain and train replacements.

Be specific; general statements are inadequate. Attach statements or affidavits to Form 42A whenever it is necessary to present additional information which will help the Local Board in considering your request. There is an important selling job to do in each case. It is responsibility to convince the Local Board that you are making a real effort to work out your own manpower problems.

When an employee is classified or reclassified, he is mailed Form 57, Notice of classification. If the employer has filed Form 42A, he should receive notice on Form 59, Classification Advice, *but this isn't always done and employees, therefore, s h o u l d promptly report any change in their draft status.*

Appeals Procedure

WHEN a registrant is notified of his reclassification in 1-A, the employer has ten days from the date Notice of Classification was mailed by the Local Board in which to file an appeal.

At this point, you should review the case carefully to determine whether the employee is a necessary man. If additional time is required to secure or train a replacement, an appeal should be filed. It is advisable, however, before filing Notice of Appeal to exhaust the possibilities of handling the matter satisfactorily with the Local Board. In other words, after the registrant is reclassified in 1-A, ask the Local Board to reopen the case and consider anew the registrant's classification. A personal appearance may enable you to convince the Local Board that deferment should be granted.

If the Local Board refuses to open the case, the appeal should be filed before the ten days expire. No particular form is necessary. A letter to the Local Board by the employer indicating that he wished a review of the case by the Board of Appeals is sufficient. After the ten days have elapsed the employer has no right to appeal, but the Local Board is authorized to permit an appeal if it is satisfied that the failure to appeal was due to some cause beyond the control of the employer filing the appeal. The Local Board cannot allow an appeal to be taken after it has mailed the registrant the order to report for induction (Form 150). The employer should, therefore, see that all appeals are filed without delay.

The appeal procedure emphasizes the need for complete information being furnished when Form 42A is filed, as there are no appearances before the Appeal Board and new evidence cannot be placed in the registrant's file between the time the Local Board makes its final decision and the time the Board of Appeals hears the case. The function of the Appeal Board is to review the decisions of Local Boards and they can consider only such information as was available to the Local Board.

The employer may, however, attach to his Notice of Appeal a statement specifying the respects in which he believes the Local Board erred, may direct attention to any information in the registrant's file which he believes the Local Board has failed to consider or give sufficient weight, and may set out in full any information which was offered to the Local Board and which the Local Board failed to include in the registrant's file.

Transfer of Appeals

WHEN an appeal is taken from a classification of a registrant upon the ground that he should have been deferred by reason of his occupation, the employer may ask to have the appeal transferred to the Board of Appeals having jurisdiction over the area in which the registrant is then employed. The request for trans-

fer must be made when the appeal is first filed. It should state (a) in what respect an occupational question is involved; and (b) the name of the registrant's employer and the street address, county and state where the registrant is employed.

When a request for transfer is made and meets the requirements, the case is forwarded to the State Director of the State in which the man is registered and is sent by him to the Appeal Board within his State, and which has jurisdiction over the place of employment of the registrant if it is in that State. Otherwise, he forwards it to the State Director of the State in which the registrant is employed for reference to the Appeal Board having jurisdiction where the man works.

State Director of Selective Service

IF an appeal has been taken and the employee is continued in Class 1-A by the Appeal Boards decision, the employer may then communicate with the State Director of Selective Service.

Each State Director has one or more assistants who are assigned to occupational classifications. They are available to employers for a consultation at the headquarters office or, if the employer prefers, they are available to visit his plant or office for complete discussion of all problems of the activity which involves Selective Service. You should avail yourself of this service for advice on local deferment problems and procedure.

If the State Director concludes to take no further action after the employer has requested him to review the case, the employer may communicate with the National Director of Selective Service in Washington, D. C., and request that he review the case. The director of Selective Service, like the State Director, may direct the Local Board to reopen and consider anew the case, or he may appeal to the President from the classification made by the Board of Appeals.

Note: Employer must prove key employee is a **necessary man** in an **essential activity**; that he has tried to, but cannot replace due to shortage of persons qualified, or with the training, or skill, of such key employee and that removal will cause a serious loss of effectiveness in such activity.—From Grain & Feed Dealers' National Ass'n Bulletin.

HANDICAPPED WORKERS OKAY

More and more employers faced with labor shortages are trying out disabled individuals in a variety of jobs. Such workers are making a good record, 66% of those employers queried reporting the productive output of these workers as high as that of able-bodied employees, and 24% stating it was higher because the handicapped had developed greater powers of concentration than most able bodied men. 55% of the employers said there was less absenteeism in the handicapped group, and 83% stated that labor turnover among them was lower than among the able-bodied.

A probable estimate of disabled persons now unemployed, unsuitably employed, or employed at work that does not permit full use of their talents runs about 1,000,000. They are draft-proof; many are better suited for particular jobs; they don't shop around for other jobs—thus reducing turn-over and improving morale; they do careful work; they are more appreciative of opportunity; they are so careful that they have fewer accidents, and their attendance record is as good as that of normal persons.

While the number of physically disabled persons placed in jobs is growing, the disabled population also is growing, due to the increase in industrial accidents throughout the U.S., and of course to war casualties.—USDL Bulletin.

TWO INMATES of an asylum had been given a hammer and one nail. One of the inmates had placed the nail head first against the wall and started hammering. Seeing that he was getting no appreciable results, he said to his companion:

"The bird who made this nail is crazy. He put the point on the wrong end."

The other replied. "You're the one that's crazy—this nail goes in the opposite wall."

Cannot Discontinue Bonus Payments

If a firm has customarily made bonus payments to workers they cannot safely be discontinued. Failure amounts to a reduction in compensation requiring WLB approval.

In 749 Michigan war plants 464,600 workers ride to work in private autos.

CORN CONSUMPTION GAINING

A REVIEW of the world's corn production and trade from 1925 to 1939 reveals a steady upward trend in production and consumption in virtually all countries since the early 1930's, according to a USDA report. The increase is attributed not only to the swelling use of corn as a feedstuff but also to its increasing use in many countries for human food.

In 1939 the world's crop amounted to 5,104,000,000 bushels compared with the average of 4,737,000,000 bushels during the 1925-29 period, of which the U. S. accounted for only about 51% compared with 56% during 1925-29, due mainly to increased production in Latin America.

Less than 10% of the world's annual production moves into channels of international trade as grain, because the bulk of it in most countries is used at home as a feed for livestock. Argentina is the exception, since its hog production has been relatively unimportant and Argentine cattle are fattened largely on alfalfa and other pasturage crops.

Argentina is by far the principal exporter of corn, exporting in normal years approximately two-thirds of its crop, which during 1935-39 represented 65% of the world's total export movement. The Danube Basin is second, followed in order of importance by the United States, the Union of South Africa and French Indo-China. As a rule, less than 1% of the United States crop enters the export market. In the Danube Basin, where the crop is an important item in the diet of the people as well as for feeding livestock, exports usually range around 10% of production.

Under normal conditions the bulk of the corn moving into export channels goes to the United Kingdom, the Netherlands, Germany, France, Belgium, Denmark, Ireland and other European countries, where it is used principally by livestock producers. Canada and Japan are the only non-European countries importing significant quantities. Imports by Canada, however, are largely U. S. corn intended for transshipment to European markets. Japanese imports come mainly from French Indo-China and the Netherlands Indies.

Just Existed

"Methuselah lived nine hundred years."

"I can't understand it. And that was before vitamins, too!"

Just like a ...DENT

Concrete, like teeth, **MUST** be inspected and attended to regularly! Cavities **MUS** prepared, **cleaned** with only a technician's skill, **rebuilt** with an expert eye towards p and, finally, **filled** with a truly lasting protective material; . . . bridge-work must b and whenever necessary — **and the sooner the better and the cheaper it will be.**

Nature is constantly **tearing down** and so both concrete and teeth must be restored as **quickly** a knows how — for once deterioration has started it increases rapidly and restoration costs jump **away** may even reach the point where either is beyond reclaiming.

Did you ever stop to think just why you go to a dentist to have your teeth fixed? . . . . "Sure" yo an expert and has the necessary tools, equipment and experience with which to do a first-class job stop to realize what would happen if you did not go to an expert to have your concrete repaired!

We have had nearly thirty years' experience exclusively in the restoration and care of concrete and are busily engaged in this specialized work the year 'round. By having the proper tools and equ of experience we are enabled to give you the bes expense. If you entrust your problem to us yo satisfactory results and the most for your money!

Protect your property investment as you would hav your teeth from further decay — **the best way!**

Do it NOW — it's NOT TOO

No obligation for an estimate

Our work is *NOT cheap*, — but it *is* lasting. The reason is the skilled man-hours involved and the *quantity* and *quality* of our materials is *greater* and *costlier* and *more satisfactory*. The *best is* the *cheapest* in the long run!

Call in **B. J. MANY CO**

213 STATE ST., DETROIT

IST!

be painstakingly
manent strength
put in wherever

as **well** as science
— and eventually

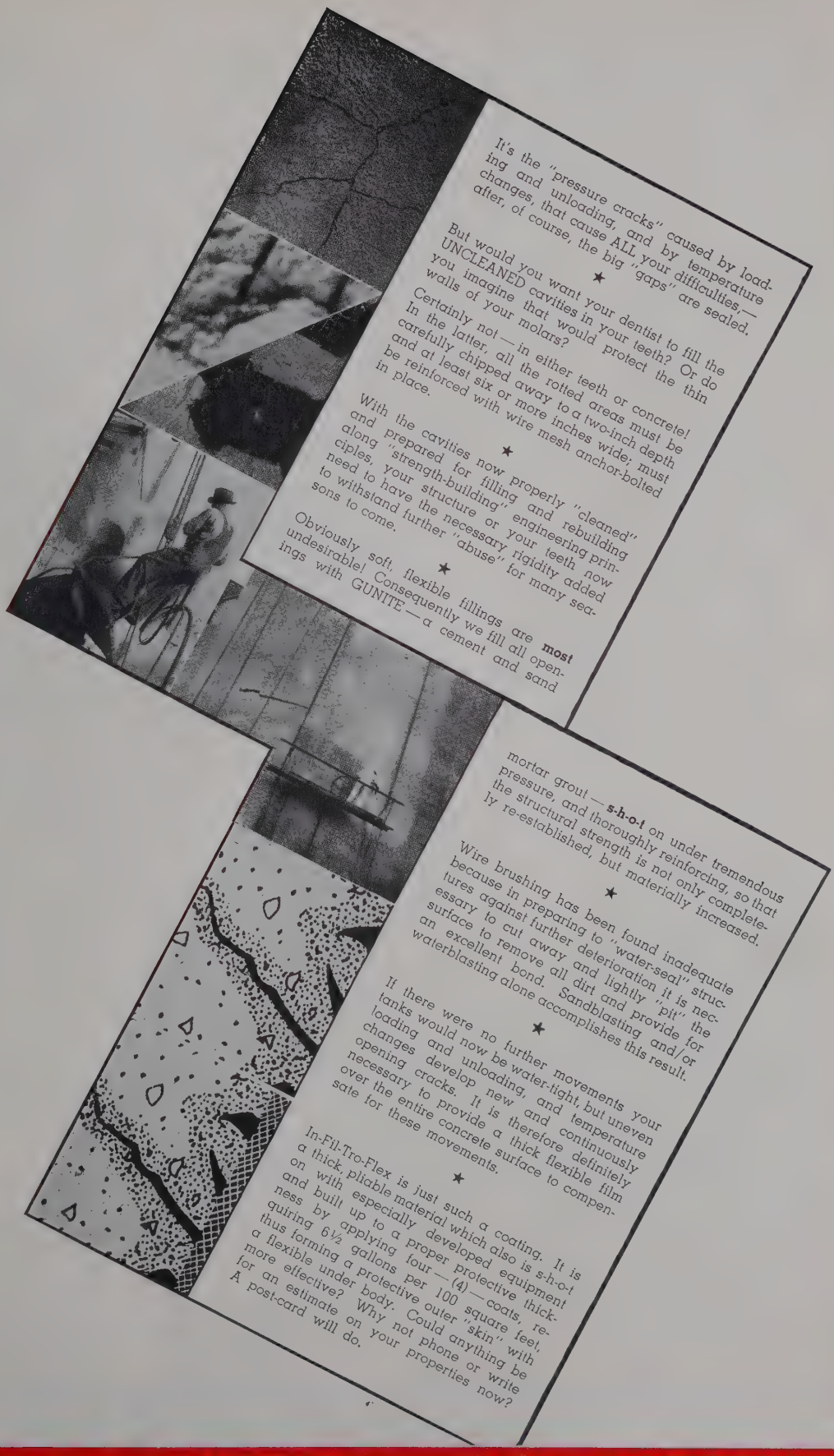
say, "because he's
. . But did you ever

r skilled mechanics
ment and a wealth
ob and at the least
can be assured of

your Dentist protect

TE.

Just



It's the "pressure cracks" caused by loading and unloading, and by temperature changes that cause ALL your difficulties,—and, of course, the big "gaps" are sealed.

★

But would you want your dentist to fill the UNCLEANED cavities in your teeth? Or do you imagine that would protect the thin walls of your molars?

Certainly not — in either teeth or concrete! In the latter, all the rotted areas must be carefully chipped away to a two-inch depth and at least six or more inches wide; must be reinforced with wire mesh anchor-bolted in place.

★

With the cavities now properly "cleaned" and prepared for filling and rebuilding along "strength-building" engineering principles, your structure or your teeth now need to have the necessary rigidity added to withstand further "abuse" for many seasons to come.

★

Obviously soft, flexible fillings are **most** undesirable! Consequently we fill all openings with GUNITE — a cement and sand mortar grout — **s-h-o-t** on under tremendous pressure, and thoroughly reinforcing, so that the structural strength is not only completely re-established, but materially increased.

★

Wire brushing has been found inadequate because in preparing to "water-seal" structures against further deterioration it is necessary to cut away and lightly "pit", the surface to remove all dirt and provide for an excellent bond. Sandblasting and/or waterblasting alone accomplishes this result.

★

If there were no further movements your tanks would now be water-tight, but uneven loading and unloading, and temperature changes develop new and continuously opening cracks. It is therefore definitely necessary to provide a thick flexible film over the entire concrete surface to compensate for these movements.

★

In-Fil-Tro-Flex is just such a coating. It is a thick, pliable material which also is s-h-o-t on with especially developed equipment and built up to a proper protective thickness by applying four — (4) — coats, requiring 6½ gallons per 100 square feet, thus forming a protective outer "skin" with a flexible under body. Could anything be more effective? Why not phone or write for an estimate on your properties now? A post-card will do.

Can Reduce Absenteeism

PLANTS without systematic plans for reducing the causes of absenteeism have nearly twice as high a rate of job absences as those which do have such programs, according to OWI. The report is based on interviews with workers in plants in various industries and various sections of the country, talks with a number of the absentees themselves, and information from the plants, representatives of labor and management, and community leaders.

Seven plants with systematic programs were found to have a job absence rate averaging 4.4% a month. Nine other plants, with hit-or-miss methods, had an absence rate of 8.1%. Analysis of absence records of 1800 workers—100 in each of the 18 plants—showed:

1. Married women are absent most. Next come single men, then single women. Married men are absent least.

2. Those who had been on the job between 3 months and 2 years were most frequently absent. Next came those with less than 3 months. Least absent were the old hands with more than 2 years experience.

3. New residents of a community are more often absent from the job than regular residents.

4. Workers who object to plant health or safety conditions, or lunch arrangements, or promotional policy, are more frequently absent than satisfied workers.

More than half of the workers had specific suggestions in answer to the question what can be done to cut down absenteeism. The most frequent suggestions were for re-arrangement of hours of work and not granting overtime pay for the week in which the worker is absent. Other suggestions: improve plant conditions, community conditions, wages, and productive efficiency, educate employees, reward regular attendance, discharge the absentees and put them in the army.

Corrective Proposals Suggested

TYPICAL proposals for rearrangement of hours of work showed the workers were concerned with reducing long hours, or concentrating work so they will have afternoons or days to themselves. Some were:

"Give Saturday afternoon off."

"Let everyone take a day off a month to take care of personal work."

"Permit one shopping day a month."

"Give workers vacations."

"Give 5½ days a week and work longer each day."

Punitive methods are used in some of the plants, including dismissals and layoffs, but these seem to be used mostly as threats except in a few flagrant examples. One shipyard tried to shame absentees by issuing "Hitler check" for time lost, but the resentment was so strong that the company quickly dropped the plan. Some workers quit, and many brought in evidence they were ill or had other justifiable reasons for absence.

Medical, Safety Programs Help

MEDICAL and accident prevention programs were major factors in systematic anti-absenteeism efforts. Some plants have medical staffs or clinics, and visiting nurses. A staff of safety men, insistence upon safety shoes and other devices, and requirement that simple safety rules be universally observed have also been used effectively. In the plants visited, however, few personnel departments were making broad, positive efforts to change working conditions to keep the employees satisfied.

Criticism by many women workers and by some men centered around inadequate and unsanitary washroom facilities, which are directly related to health. So here are OWI recommendations for reducing absenteeism by attacking its causes, based on a survey of 18 plants and 100 workers in each plant:

1. Fact-finding machinery should be established in each plant to discover causes of absenteeism.

2. Support and confidence of workers should be sought through unions and labor-management committees, which will carry out phases of the programs.

3. Ease the burdens on working wives and mothers by extending shopping and other hours and providing child-care facilities.

4. Improve bad plant conditions, such as poor heating, inadequate locker and wash-room facilities, slow and insufficient medical attention for accidents.

5. Safety rules and full-time use of safety devices are important.

6. Provide hot, nourishing meals at reasonable prices.

7. Help workers to adjust themselves to new jobs and communities by bettering in-plant training, and providing adequate housing, transportation and recreation. Management needs to convince employees that it is all-out for production and does not discriminate in promotion and upgrading.

8. Prevention and remedy are better than punishment.

STEP UP WAR ON SABOTEURS!

Enemy saboteurs operating in the U. S. and Canada probably will intensify their efforts to disrupt war production because the submarine menace has been abated, Rear Adm. Harry G. Taylor just warned members of the Chicago Railway Special Police. An increase in the number of accidents "with peculiar alibis" and of fires in which the "evidence is burned" proves that saboteurs are active and that every precaution must be taken to end their reign. Machines which have been put out of commission have all been key units, he pointed out.

Peavey-Van Dusen-Harrington Interests

STORE WHEAT SUCCESSFULLY IN WINTER SPORTS ARENA

Reports Paul H. Christensen In Interesting Detailed Story

The job of loading out the 107,000 bu of government loan wheat stored by Peavey Elevators for the Commodity Credit Corporation in the Winter Sports Arena at Grafton, North Dakota, since the summer of 1942, was completed two months after loading-out orders came from the government agency.

Quite a story is connected with this unique emergency method of storing grain, for the supplying of the details of which we are indebted to Lloyd Hughes, traveling superintendent for Peavey Elevators in the Grafton territory.

Idea Arose with City

IN the summer of 1942, when storage space for grain was at a premium, the city officials of Grafton approached Peavey Elevators with a proposition to lease the building for grain storing. The elevator company set out to make arrangements with the C.C.C. to store government loan wheat in the structure, on the completion of which a lease was entered into between Peavey Elevators and the city.

Plans were immediately put into operation to fill up the building, a WPA project completed in the fall of 1938, 200′x100′ in size, metal covered with a dome shaped roof, having a hockey playing surface of 174′x74′ over a cement floor and banked by 4½′ boards.

Best Wheat Selected

FIFTY-SEVEN cars of wheat were shipped in for storage in transit from stations of Peavey Elevators on the Walhalla and Neche lines of the Great Northern Railroad. Wheat intended for storage was carefully selected and nothing but 1941 crop wheat of not more than 13.0 moisture was allowed to be shipped in.

The actual work of storage began Aug. 7. Since the Arena is located about a block from the railroad, it was necessary that the wheat be hauled by truck from the Great Northern tracks, and about two railroad carloads a day were unloaded by two trucks.

Portable Elevator Found Wanting

AT first a portable grain elevator such as is used at farm granaries was used, but this was found unsatisfactory for two reasons—one being that such a type of elevator, it developed, was not built sturdy enough to handle the volume of grain involved and did not have enough capacity; the other being that the portable lacked the power to heap the grain at the desired height in the center of the building. The peak of the wheat pile was slightly over 20′ high when the loading was finished.

So a 9″ screw conveyor, similar to that used in the regular elevator annexes of Peavey Elevators, was hung from the roof supports, and a leg with 5x10 buckets was constructed to unload the grain into this conveyor.

This proved to be the solution to the problem of filling the Arena to its full capacity.

Upright wooden ventilators were installed at 20′ intervals to prevent the grain from heating and to permit fumigation if necessary.

In addition to the wheat shipped in by rail, a sizable quantity was transferred by truck from the Grafton elevator and other houses of Peavey Elevators within trucking distance, and a total of 107,000 bu was ultimately stored in the building, the equivalent of the capacity of three country elevators.

Grafton Citizens Make Sacrifice

THE result was that, while Grafton people lost out on their indoor ice skating and their hockey games last winter—and they were accustomed to seeing some good ones as the team they had been supporting was an imported outfit from Winnipeg and played fine hockey—they nevertheless had the keen satisfaction of knowing that their sacrifice meant a noteworthy contribution to the war effort in that a large stockpile of grain was preserved in storage under watchful, expert eyes—grain destined to get into the channels of commerce and to find its way to our armed forces and our Allies in the form of the finished product—bread.

Special Leg Built for Unloading

ORDERS came from the C.C.C. to load out the wheat and empty the improvised warehouse of its contents.

In unloading the Arena a special leg was built; in fact, the leg used in loading operations was rebuilt to answer the purpose. A 1′ section of the conveyor was attached to the bottom of a leg just high enough to fill a truck box and the planks of the conveyor box were beveled on the ends so that it could be pushed into the wheat pile, with the leg and conveyor mounted on casters, making it readily movable as the men worked back into the pile, Two pickup trucks were used to haul the wheat from the Arena to Peavey's Grafton elevator through which it was loaded into railroad box cars for shipment.

Mr. Hughes says that the wheat came through in perfect condition considering the manner of storage in one huge pile. —From *The Grainville Bugle,* published by F. H. Peavey & Co., Minneapolis.

So That's What It Is

Courage, we are told, is fear that has said its prayers.

How Wheat Looked in Grafton Winter Sports Arena before Unloading.

For War Stamps, Of Course

He: "Your little brother just saw me kiss you. What can I give him to keep him from telling?"

She: "He generally gets a dollar."

The teeth of Americans and Canadians, on the average, are 30% superior to those of the inhabitants across the Atlantic.

Motor vehicles are the only means of transportation for 18 million non-farm rural workers, many of them war workers.

Darling Leaves Goldproof

M. M. Darling, 924 Hess Lane, resigned his position as Super at the Gold Proof Elevator, Louisville, early in November. His future plans have not been announced.

JOHN LYLE TO DANNEN

John Lyle, formerly with Ralston-Purina Co., Buffalo, is now associated with the Dannen Grain Co., St. Joseph, Mo. Mr. Lyle is quite a consistent SOGES convention attendant.

Most Valuable, He Says

I do not think there is any other publication that gives more valuable information than does "GRAIN".—Ray M. Seeker, Anheuser-Busch, Inc., St. Louis.

ACCIDENTS IN OUR PLANTS

HEREWITH are a list of some of the accidents reported in our industry within the past sixty days. Knowing of them should enable readers of "GRAIN" to fortify themselves against similar occurrences.

Unloading car with power shovel; shovel threw man against side of car, strained shoulder resulted.

Handling bags of feed, wrenched wrist . . . Another strained back.

Caught foot between shovel and side of car while unloading; bruised foot.

Splinter from grain door became infected.

Cut received when working on batch mixer developed infection.

Straightening pile of bags; strained back.

Particle lodged in eye because operator didn't wear his goggles when using grinding wheel.

A cut and bruised leg resulted when worker ran into truck left in dark isle.

FRACTURED finger upon opening door of box car when caught finger between pinch bar and platform. . . . Another shattered finger bone same way.

Flash from torch burned retina of eye of workman near electric welder.

Working in soybean oil gave acne on legs. . . . Another from fumigant.

Closing door on box car, hand slipped and slit knuckle on door sill.

Dust in eye. . . . Piece of steel in eye while working on conveyor.

Placing car puller hook on car when it slipped off and fell on foot, bruised toes.

Cut and bruised fingers came from a second employee starting machine while first employee was removing damaged stock therefrom. . . . Another bruised finger and infection developed when he reached into moving machine to catch damaged product.

Power shovel struck bolt on floor of car in unloading grain; shovel crushed chest.

Shifting spouts in elevator, strained abdominal wall. . . . Strained groin helping move Beeves hoist over screw conveyor housing.

Opening bag when knife slipped, cut thumb. . . . Smashed finger with hammer while repairing equipment.

Check Extinguishers

Several common types of fire extinguishers are subject to freezing and, if allowed to do so, may be rendered inoperative or even dangerous to use. Pump tank and gas cartridge extinguishers can be protected by adding anti-freeze chemicals supplied by the manufacturer. Chemicals other than these should not be used, however, as they may cause corrosion. Since the sale of all Underwriters' Laboratories approved extinguishers is now subject to priority restrictions, careful maintenance, including protection against freezing and an annual inspection and recharge, is doubly important.

The Four Marines Puzzle

Serving in the American forces on Guadalcanal are men of all extractions. In a certain detachment of marines are an Indian, a Javanese, a Kanaka, and a Lithuanian. Their names are Adam, Ben, Charlie, and Dan. One hails from Maine, one from Nevada, one from South Dakota, and one from Texas. These four men often travel together through the jungle, since one is an engineer of sorts, one is a fencer, one a gunner of great skill, and one a hut maker.

The object of this puzzle is to match each name with the proper skill, state, and extraction. This can be done without any guesswork after reading the statements which follow:

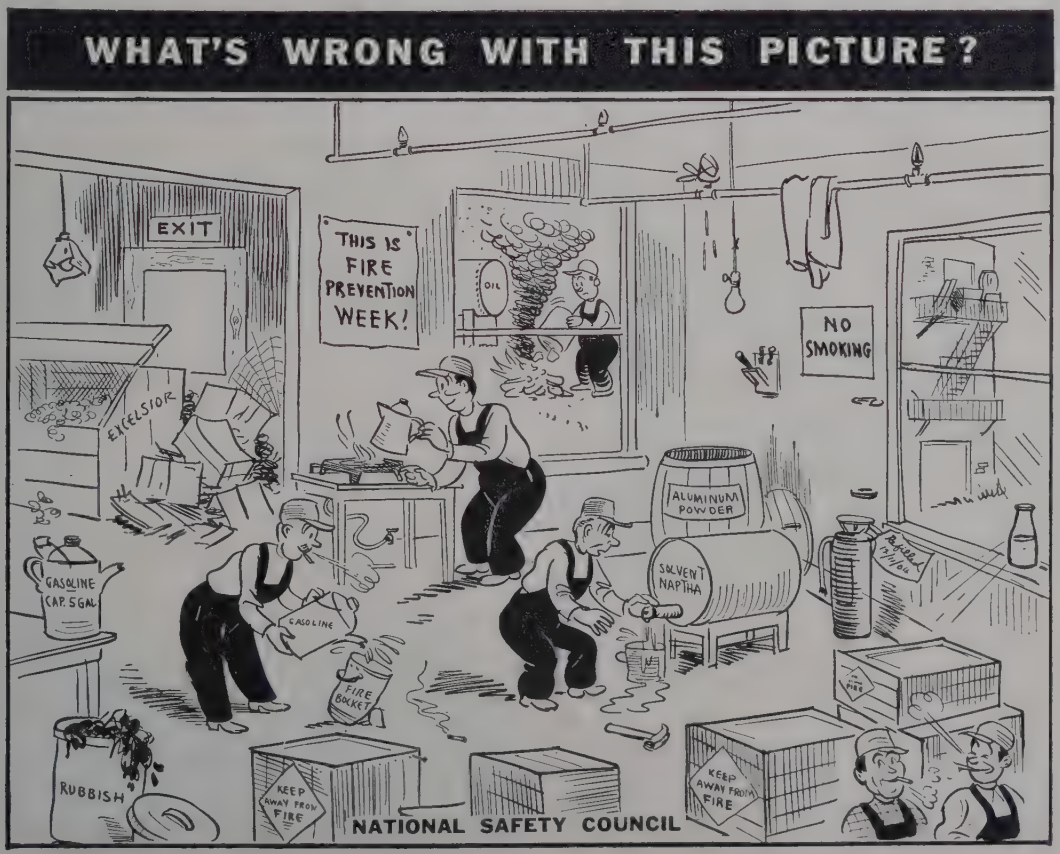
When following a jungle path, Dan usually leads, followed in order by the hut maker, the Javanese, and the man from Maine. When swimming a stream, however, Adam plunges in first, followed closely by the gunner, with the Lithuanian and the man from South Dakota bringing up the rear. Climbing a hill, Dan again leads, but the engineer comes next, followed by the Indian, while the Nevada man is the rear guard. When they take to cover, Ben and the fencer go one way, while the Javanese and the Texan go the other. At mess call the Javanese and the South Dakota man are the first to respond.

Busier Than Weevils

Frightfully busy at the head-of-the-lakes. In about another month we should be able to catch our breath.—Oscar W. Olsen, Peavey Duluth Terminal.

BOYS SUCCUMBS

Andrew Boys, supervisor of Albers Bros. Milling Co.'s terminal elevator in Seattle, Wash., for many years, died in San Francisco on Oct. 29th.



TO CONSERVE SKILL; STRENGTH

THE skill and strength of our industrial workers must be guarded against accidents and diseases so as to carry through the war production program. With this end in view Secretary of Labor Perkins' committee to conserve manpower in war industries has compiled a list of do's and don't's to keep workers from getting hurt. This is the ninth and final article of a series prepared by the U. S. D. of L. so that all workers can check the hazards applying to their own jobs and safeguard life and limb in their own interest and that of war production. Complete printed copies of the series can be obtained by writing to Washington.

1. Work Safely.—Find the safest way to do each job, then do it that way until it becomes a habit.
2. Use Guards.—Use all machinery guards and protective equipment provided for your use.
3. Observe Safety Rules. — Keep from getting hurt by observing safety rules and instructions.
4. Report Hazards. — Report to your safety committeeman, foreman, or supervisor any hazardous condition that you find on your job.
5. Fellow Workers. — Watch out for the safety of your fellow workers.
6. Safety Committees.—Work with the safety committee in your shop. If there is none, try to organize one and assist in its work through safety and health hazard check-ups, inspections, and accident investigations.
7. Personal Hygiene.—Ability to produce depends upon physical fitness; therefore, use all sanitary and hygienic facilities provided. Do not eat at your bench.
8. Neatness. — Since "housekeeping" is an effective safety measure, keep your bench, machine, or other workplace clean and neat.
9. Cooperate.—Cooperate with the Government, with your employer, and with your fellow workers in their efforts to reduce industrial accidents and diseases.
10. Remember.—Remember that it is your life, your health, your limbs, your pay envelope, and your family's welfare. Make sure that your job is safe—first, last, and always.

MILLION DOLLAR FIRE

Damage estimated at over a million dollars resulted when fire destroyed the Morrison Bros. Seed Co.'s 3-story seed terminal on Oct. 24. The Spokane property held 6,000,000 lbs of seed peas and much valuable machinery.

FIRE LOSSES SOAR

U. S. fire losses increased $46,636,000 in the first 10 months of this year over those in 1942, and total $300,872,000. This figure is just $13,977,000 less than the total loss suffered for the entire year of 1942. October losses alone were up 31% over a year ago and were 12% above the $26,488,000 reported in September.

BEAN TERMINAL BURNS

The 300,000 bu. bean terminal elevator of the Michigan Bean Co., Toledo, O., was destroyed by fire last month. The plant was half filled with edible Michigan beans being handled on large contracts for the government.

Wisconsin Drops Code

Wisconsin's proposed dust explosion code has been dropped by the state Industrial Commission which sought its adoption.

Of the first two million men examined for the Army through Selective Service, one million were rejected. Dental defects, numbering 188,000 *cases or* 20.9%, *were the greatest cause for rejection.*

If you lack faith in yourself, how can you ask others to have faith in you?

WANT 25% WHEAT BOOST

The wheat acreage goal just announced by Marvin Jones, WFA head, for 1944 indicates a 25% larger crop to handle next year. Figures on acreages requested (000 omitted) with comparisons of the indicated acreages for 1943, are:

	1943 Indicated	1944 Goal
Wheat, planted	54,159	67,030
Corn, planted	96,818	100,253
Oats, planted	42,654	39,558
Barley, planted	17,893	17,372
Sorghums, planted	17,220	16,740
Hay, all tame, harvested	60,489	62,838
Rye, as grain	2,875	2,408
Rice, planted	1,538	1,525
Grain and hay	293,646	307,724
Oil and fiber crops	45,041	48,423
Soybeans, harvested for beans	11,480	13,654
Flaxseed, planted	6,289	5,895
Peanuts, grown alone	5,013	6,158
Cotton (in cultivation July 1)	21,995	22,277
Flax for fiber	15	25

The total of crop acreages sought for 1944 is at a new record—380,000,000 acres, an increase of 16,000,000 acres over this year.

HOOSIER SOYBEAN AVALANCHE

Well, here I am again. Just a year ago I wrote you about the soybean movement and how many beans we moved here at Decatur, Indiana. And I told you that we never before had or never again expected to have such a large movement, but I will have to take in my horns because we have broken that record by far this year.

Last year the largest delivery on trucks was 530 loads, a total of 96,500 bu. in one day of 16 hours. This year the largest delivery on trucks was 560 loads, a total of 102,321 bu. in one day of 19 hours' work. The total truck beans received to Oct. 20, 1943, is 400,000 bu.

We started to unload beans by carloads Oct. 6, and by Oct. 20 every storage available was filled, even both car pits and both truck pits, including both drive ways for truck dumps—which had 6 ft. of beans on the floors. In the 20 days we unloaded 1200 cars, and the largest day's unloading for 24 hours was 102 cars.—Clifford C. Steiner, Elevator Super, Central Soya Co., Inc., Decatur, Ind.

CAR SHORTAGE CONGESTS 30% OF N. W. ELEVATORS; LOADING UP OVER 10,000 CARS WEEKLY

"ELEVATORS whose operations are now restricted by car supply amount to only 10% of the total, and these will be on a current basis in another two weeks," Ralph E. Clark, Manager of the Closed Car Section of the Association of American Railroads testified before the Senate Committee on Interstate Commerce earlier this month. In the 11 weeks of the present crop season, the number of cars unloaded at terminal markets was 1.5% less than in the same period in 1942, but the number of cars loaded out of terminal elevators in the harvest season was nearly 38% more than last year.

In addition to the 8,208 cars, which this movement took out of the normal shuttle service between country and terminal elevators, the number of cars reconsigned beyond the terminal markets was more than 50% above last year, thereby taking another 9,754 cars out of the usual short haul shuttle service.

The railroads were able to maintain a sufficient car supply to enable 70% of all the grain elevators in the states of Minnesota, North and South Dakota and Montana to handle all grain offered.

Carloadings of grain and grain products in the first 43 weeks of 1943, averaged more than 10,000 above the same period in 1942.

The railroads are handling this traffic with 10,481 fewer box cars than they had a year ago, according to Mr. Clark. In the 12 month period ended Sept. 1, he said, only 2,134 new box cars were installed, as compared with 54,424 in the previous corresponding period.

MORE GRAIN BOATS

In order to assure movement of the remaining portion (48,704,768 bu.) of the 1943 quota of 135,000,000 bu. of grain, ODT released ore boats Nov. 1 to carry 15 million bu. of grain the first half of the month. Carriers, shippers and receivers passed this mark by 2,000,000 bu. Director Jos. B. Eastman has asked the carriers to operate just as long as humanly possible.

To get the maximum grain cargo out of Lake Superior during the closing weeks of the season, the ODT as of Nov. 15, authorized all ore vessels of keel length up to and including 504 feet, to accept both unload and winter storage grain cargo.

To facilitate unloading at Buffalo and encourage carriers at the head of the Lakes to take on grain for unloading, ODT has asked the railways to concentrate into grain traffic all box cars suitable for grain and available in the Buffalo area.

In addition to getting the urgent grain cargo to eastern lake ports, these measures are expected to make the most effective use of Lakes vessel capacity in the event that the low temperatures and bad weather consistently encountered recently at the ore ports slow ore loading down below par.

LAKE GRAIN RECORD

ODT announces that an all-time monthly record for grain carried on the Great Lakes by vessels of U. S. registry was set during October, when 23,877,460 bu. brought the season's cumulative total up to 111,625,712, or within 3,363,288 bu. of the record total moved in the entire 1942 season.

No More Sizzling Grain

With Kansas shippers able to obtain but a fraction of the boxcar needs, refrigerator cars are being pressed into service for west-bound grain shipments out of Hutchinson, according to reports. Many line elevators have closed because cars are so difficult to get. This condition, being generally true, will mean sustained movement activity for a prolonged period.

A submarine needs 250,000 pounds of lead for storage batteries and 200,000 pounds for batteries, altogether, as much as goes into the storage batteries of 8,200 automobiles.

SECOND LARGEST CORN CROP

The second largest corn crop on record in the U. S.—3,086,000,000 bu. —was forecast by the USDA Nov. 10 on the basis of Nov. 1 conditions. While the predicted crop would be 90 million under last year's record production, it would exceed the 10 yr. average yield of 2,349,000,000 (1932-41) by 736 million. Approximately 94 million acres of corn are expected to be harvested this year compared with 89,484,000 last year.

Little change is shown in other crop estimates compared with a month ago. Wheat is unchanged at 835,816,000 bu. The soybean crop is placed at 206,017,000 bu. against 209,-560,000 a month earlier.

CANADIAN WHEAT TO CCC

All the feed wheat in Canada that it appears possible to move will continue to be purchased by CCC. Since June more than 40 million bu. has been purchased in Canada, along with 1⅔ million bu. of wheat and 50,000 bu. barley from Argentina. Ships for additional quantities from S/A are hoped for.

WHEAT GRIND UP

During September, 998 mills ground 45,565,340 bu wheat compared with 42,827,642 bu ground by 1,001 mills during August and 44,562,783 bu ground by 1,080 mills in Sept., 1942. Thirty-one of these reported grinding 2,988,834 bu additional in the production of granular flour. 154 mills with over 2,000 sacks (1,000 bbls) capacity ground 76% of this total, whereas an additional 28 mills with between 1,801-2,000 sacks capacity boosted this figure to 81%, and the 13 mills of 1,601-1,800 capacity brought it up to 83%. The remaining 17% was spread between 803 mills, 569 of which were under 400 sacks (200 bbls) capacity.

CORN GRIND AT PEAK

Corn ground for domestic consumption by 11 refiners during October totaled 10,773,300 bu, compared with 10,281,142 bu last month and 10,528,-413 in October, 1942.

Wasting No Space

In a bunch of B/Ls received recently covering CCC wheat from Minneapolis, I observed the following: G. N. No. 38989—151,400 lbs. If this is not an error, it looks as though the Minneapolis boys are not wasting any space through underloading, does it?—Earl R. Evans, Evans Elevator Co., Champaign, Ill.

Orie Powell Dies

Orie Powell, Elevator Super for the Acme-Evans Co., Indianapolis, died on Nov. 8th, according to word from Ray F. Sopher, General Supt.

VICTORY SCRAP DRIVE NOT TERMINATED

Because of the increasing amount of iron and steel scrap needed to maintain our production requirements and the fact that the recent coal strike caused an increase in the amount of scrap used in steel furnaces, H. M. Faust, Director of the Salvage Division of the War Production Board, announces that the "Victory Scrap Bank" Drive, scheduled to terminate on November 15, has been continued INDEFINITELY.

"As long as the war lasts," Mr. Faust said, "there will be a continuing need for iron and steel scrap to keep the mills well supplied. Accordingly, the collection of iron and steel scrap from all sources must be a continuing operation.

"Mills are now consuming more purchased scrap than they are receiving. Stockpiles are shrinking. Despite any conditions which may have affected results, the fact remains that the winter months lie just ahead and our inventory position is not improving."

ACID TEST

The "spot check" to determine the grade of alloy is being given a sample from this bin of metal shavings which is being salvaged for the war effort at a Westinghouse Electric Company plant. Proper separation and segregation brings higher prices for metal scrap of all kinds.

Another Bean Plant To Cargill

The soybean plant of the Illinois Soy Products Co., Springfield, Ill., was just acquired by Cargill, Inc., of Minneapolis. Other bean processing plants are operated by the buyers at Cedar Rapids and Fort Dodge, Ia., with a total of 280 tons of meal daily capacity. The latter plant was just acquired from the Plymouth Processing Co. where Charles W. Simmons remains as manager.

Utah hunters are asked by the State Fish and Game Department to turn in all deer fat from the game they shoot in order to swell the State's waste fats collection by about 100,000 pounds.

SOYBEAN MOVEMENT HEAVIER

Making rapid short "shuttle" hauls between country points and processing plants, the more than 1,200 box cars now operating full schedule in the soybean harvesting sections are relieving the congestion. Permits are required for 13 markets to forestall congestion at many major markets and processing points. Manpower shortages at elevators, however, are retarding unloading, and much terminal space in some areas is crowded with wheat brought in from other areas.

GRAIN STILL POURING IN

Another "harvest peak" was reached in carloadings of grain and grain products during the past 30 days, reports the Ass'n of American Railroads. Soaring far above loadings for previous years, the records show for the weeks ending:

	1943	1942	1941
Oct. 16	61,409	50,463	37,564
Oct. 23	59,665	47,665	35,083
Oct. 30	58,181	47,320	35,852
Nov. 6	56,428	42,006	35,532
Nov. 13	51,995	41,340	40,297
46 wks. (+000)	2,342	1,916	1,786

Grain Exports Off

Cars of grain unloaded at tidewater for export during October totaled 2,285, compared with 2,540 a year ago.

Ceilings on Grain Doors

Ceilings just established on "General manager type" best grade doors are 10c above previous prevailing prices and vary from 71½c to $1.35, depending upon the length and quality of wood used. The next three lower grades are 5c, 10c and 15c less, respectively.

Alcohol Production Up

Grain is furnishing the bulk of the raw material for the 500,000,000 gals of high-proof alcohol the nation's converted whiskey distilleries, and others, will produce within the next 9 months for munitions and synthetic rubber.

Doughboy Mills Into Pea-Soya Soup

The Doughboy Mills, New Richmond, Wis., is making up a 5-lb pea-soya dry soup mix for shipment abroad by the WFA for relief and rehabilitation feeding. It is being packed in a newly designed cargo space-saving package and is considered one of the most economical and nutritious of relief foods. Instructions for its preparation are printed in 15 different foreign languages.

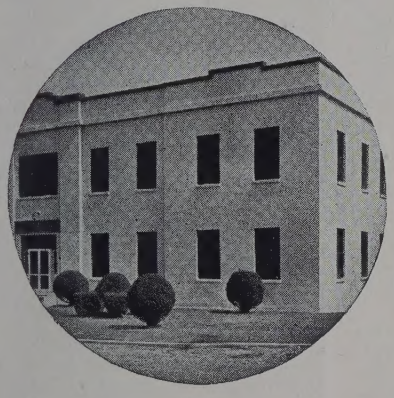
Farrell Super at Purity Oats

Eugene Farrell, associated with General Mills in various locations throughout the country, is newly appointed plant super of the Purity Oats Co.'s oat cereal plant in Keokuk, Ia., a GM subsidiary.

how to save your structures . . .

an announcement

ten years in the making



Four years of research in the Horn Laboratories with irreversible inorganic gels . . . six years of field proof on hundreds of structures . . . ten long years in all. Now the A. C. Horn Company, with 47 years of Building Material experience, announces WATERFOIL — the protective and decorative treatment for masonry surfaces.

"Waterfoiling" concrete, stucco or brick surfaces lengthens the life and beautifies structures. WATERFOIL impedes the penetration of water which causes reinforcing bars and mesh to rust and concrete to spall.

WATERFOIL is a unique development. It is manufactured of non-critical materials. It contains no Linseed Oil — Casein — Resin Emulsion— Volatile Thinners or Cement.

WATERFOIL becomes an integral "welded" part of the surface to which it is applied. No primers are required.

If you have poor appearing, disintegrating structures in need of restoration and protection, ask for details . . . Yes, you can get WATERFOIL without priorities. Write today.

A. C. HORN COMPANY

BUILDING MATERIALS DIVISION
Long Island City (1), New York

A HORN PRODUCT

WATERFOIL

THE UNIQUE TREATMENT FOR EXTERIOR MASONRY SURFACES

FRED MYERS LEADING

Fred Myers, Cleveland Grain Co., Indianapolis, is leading the 1943-44 parade of active members who are going out and interesting prospective members to join. He not only signed up his boss, Mr. A. C. Watkins, Secretary of the company at Cleveland, but dropped in on Fred Hoffman of Early & Daniel Co., and after telling him what it was all about, carried away his application and check.

"I suppose that I had just as hard a time getting myself to get started in this work as the high men did last year, but now that I've broken the ice I intend to keep up my lead over any other challenger — particularly in those comparable markets like Louisville and Wichita. And a half a new hat says I'll have at least one more good active Super interested and in the "family" before "Mac" Darling or Bob Ginn scratch this year's record. The other half goes on the outcome for the contest period."

Mr. Watkins writes: As far as I can see now I am not apt to take any very active part in Society affairs, but nevertheless will be interested in what you are doing. . . . Fred Myers has always been enthusiastic about your work and I am sure that what you are undertaking is very much worthwhile.

SOGES Vice President Harold Wilber, A. E. Staley Mfg. Co., Decatur, says: "Hmmm. Looks as though something interesting is getting started here Let's take a look at the record since the Duluth convention in June. Here it is:

2 Fred Myers, Cleveland Grain Co., Indianapolis, Ind.
1 Gilbert P. Lane, Arcady Farms Mlg. Co., Chicago.
1 Frank A. Jost, Jr., Gerstenberg & Co., Chicago.
1 Jim Kier, Standard Mlg. Co., Kansas City.
1 Lloyd Forsell, Albert Schwill & Co., Chicago.

Slim Carlson Says "Thanks"

We wish to thank you, and through you thank the members of the Society of Grain Elevator Superintendents for the many friendly and comforting messages and for the many beautiful floral offerings, all of which did so much to dispel that feeling of being left alone.

And as for Frances, I can pay her no greater tribute than to say she was a person of high ideals and Christian principles, a most devoted wife and Mother. Though I shall deeply miss her, I am thankful for having the privilege of knowing and enjoying her companionship for those twenty-seven years.

So again may we say to our many friends throughout the United States and Canada, thanks so much for your thoughtfulness, beautiful flowers, and kind words. *Sincerely, Frank E. Carlson and daughter, Duluth, Minn.*

Mrs. Frances Willard Carlson, born in Wadena, Minn., prominent in church and lodge circles of Duluth and the state, is survived by her husband, a daughter, Mrs. Joy C. Peterson of Ogden, Utah, her mother and a sister. She was well known to SOGES conventioneers.

GOPHER CHAPTER DISCUSSES WATERPROOFING; CAR UNLOADING; SAFETY; LABOR

By Robert R. Bredt, Pres.

The October meeting of our Minneapolis Chapter was held on the 26th at Freddie's Cafe. A goodly number were in attendance, in fact, except for a few absentee duck and pheasant hunters, practically the entire membership was represented. Featured speaker of the evening was our own Associate Member Frank Kohout of the A. C. Horn Co.

Frank gave a very pertinent and interesting picture of waterproofing as applied to grain storage tanks, both concrete and steel. He emphasized the necessity of preparing the waterproofing to meet specific climatic conditons, and this is especially important in our own territory due to the tremendous fluctuations in temperatures to which we are subject.

Foster Simmons of the McKenzie-Hague Construction Co. entered into the discussion following Mr. Kohout's presentation and much comprehensive and valuable information was passed out free of charge. We hope all of the Superintendents will remember this discussion when it comes time to erect more storage.

Edwin Dillman of Marquette Elevator was questioned at length regarding his new semi-automatic car shovel. Eddie seems to feel that after he gets it limbered up it's going to do him some good.

Paul Christensen is chairman of the mill and elevator section of the Hennepin County Safety Council again this year. Paul was one of the absentee duck hunters but Vin Shea, the Old Maestro, filled Paul's shoes quite capably in announcing the meetings for the coming year and urging all members to attend and to have their foremen attend. This is a very worthwhile and educational program and we trust that the mill and elevator industry will be well represented.

The motion to eliminate the November meeting and hold our next monthly meeting the first Tuesday of December and to continue the meetings on the first Tuesday of the month hereafter, was unanimously carried. This action merely postpones the November meeting one week. Over a period of a year the same number of meetings will be held, as in the past it was necessary to eliminate the December meeting due to the Christmas holidays.

The announcement of the death of Slim Carlson's wife came as a shock to the membership as a whole. The sympathy of the Chapter is extended to Slim in his bereavement.

Cliff MacIvor came forth with his usual quota of new members for the Association. Cliff is really going to town this year.

The employment situation is still tight around here. The papers are still filled with help wanted ads and the majority of plants in our industry are running shorthanded or have curtailed operations to meet the available supply of labor. It would seem that now is a strategic time to emphasize a little post-war planning among the employees. With several war industries already starting to curtail operations, it would seem that there would be some men available with sufficient foresight to be looking for permanent jobs after the war.

LADIES' NIGHT AT K. C.

We held our regular monthly meeting at the Pickwick Hotel on Thursday, Oct. 21st. This was Ladies' night and we had a very good turnout. Forty-seven members, their wives, and associates attended. The Kansas City Troubadours entertained us by singing and playing during the dinner, through the courtesy of our associate members.

We had as our guests Messrs. Norton, Missouri State Warehouse Commissioner; Berry, Missouri State Chief Grain Inspector, and North, Chief Scale Inspector, K. C. Board of Trade, and Mr. and Mrs. Douglas, Kansas State Chief Grain Inspector.

Everyone had a very nice time. No business was attended to, and the evening was spent getting better acquainted with the members and their wives. Mr. and Mrs. John Lyle of St. Joe attended; also glad to report that Mr. and Mrs. John Heimovics were able to attend. Mr. and Mrs. Roy Conger, who have spent a great deal of time out of town taking care of salvage work for Mid-Continent Grain Co., were also present. This is the first meeting Roy has been able to attend in the last six or seven months.

We certainly enjoyed the entertainment and it seems as though everyone had a grand time.—P. A. Kier, Standard Milling Co., Chapter Secretary.

Pat Hays Promoted

Patrick Hayes, formerly "corn tower" superintendent for the American Maize Products Co., Roby, Ind., was recently promoted to the post of plant super. Congratulations, Pat, and here's looking for you at the next Chicago SOGES Chapter meeting to take a bow.—Lloyd Forsell, Albert Schwill & Co., Chapter V. P.

COME AGAIN

Welcome visitors this month included Jim Auld, Hales & Hunter Co., Minneapolis; Grover C. Meyer, K. C. (Mo.) Power & Light Co.; Gilbert Schenk, Weevil-Cide Co., Kansas City, Mo.; Arthur B. Osgood, The Day Co., Minneapolis; Harold Wilber, A. E. Staley Mfg. Co., Decatur, Ill.; Conrad C. Johnson, Innis-Speiden & Co., New York; and Paul Christensen, Van Dusen-Harrington Co., Minneapolis.

HENRY KORN DIES

Henry Korn, long an ardent advocate of greater speed and efficiency in the handling of bulk grain, died suddenly on Nov. 15 at Buffalo. Blessed with a cheerful disposition and an unsatiable craving to be of utmost help to everyone, "Hank" was one of the few privileged to have so many in the business world as genuine friends.

Born in Buffalo in 1888, Sweeper Korn started at the bottom at the old Husted Mill. When it blew up he had worked his way to the position of Night Super. Becoming Assistant Super at the Superior Elevator, which properties were then sold by Pratt & Husted, Henry became Super at the Wheeler. One year later the Wheeler sold out and he opened the new H-O elevator—then called the Hecker and now owned by the same people after having been owned by Eastern Grain Corp. for about 4 years.

After H-O sold out, Henry became Super in charge of maintenance for Eastern Grain Corp. Then the Superior Elevator Corp. was formed and Mr. Tom O'Brien asked Henry to take charge of the Superior once more. But again the Superior was sold, this time to Cargill, Inc., but Manager O'Brien leased the Canadian Pool house and Henry took charge.

He used to half-laughingly, half-seriously say that he'd spent 32 years of his life being "pushed around" and often spoke about wishing to be more of a permanent "fixture" at a single plant. Having less reason than the majority for fearing what he termed his lack of security, his many friends knew that every plant where he worked gained from his handiwork and constant experiments. What he wanted was to continue to work out, undisturbed, his ideas on methods of handling grain easier and better.

By the way of proving that box car unloading could be done easier, he put together a "pull-back" machine that he designed away back in 1926. It is working at the Pool elevator even today. He designed a machine that put three large shovels in one hole of a boat at one time. No doubt he had much to do with the many improvements in methods and machinery to handle the volume of grain pounded through day in and day out at Buffalo. Henry was a man for speed and a staunch SOGES member.

He had a lot of friends because he was one himself; he would help out anyone, and he invited all to see how he thought things could be done faster and safer. He truly warranted his reputation of being the highest paid Super in Buffalo. His widow, two sons in service, two daughters, a brother and three sisters survive.—Edward E. Frauenheim, Jr.

And Then F.D.R. Said:

White House visitor: "I'd like to see Mrs. Roosevelt."
The President: "So would I."

PRESIDENT POW RECUPERATING

R. B. Pow, President of the Society of Grain Elevator Superintendents and Resident Manager of the Reliance Grain Co. Ltd., Fort William, was unexpectedly stricken and confined to the McKellar Hospital for operation earlier this month, according to daily advises on his improving condition from Percy C. Poulton. At this writing President Pow is making good recovery, is at home, and has been permitted to go outside a time or two.

"Came out of the fog to find many kind wires waiting. Thanks to all for thinking of me. Gradually coming back. With crossed fingers and good wishes from all the gang I should be 100 percent again soon," he wires just as we are going to press.

CHANGE MEETING DATES

The Minneapolis SOGES Chapter are changing their meeting dates from the last Tuesday of the month, on which date they have met for almost a decade, to the first Tuesday. At least their Nov. 30th meeting will be held on Dec. 7th.

AMBLER TO RICHARDSON

Louis Ambler, Jr., Elevator Super. for The Glidden Co., Chicago, for 8 years, joined the Richardson Scale Co.'s Chicago office staff earlier this month. Cutting his "eye teeth," Past Chicago SOGES Chapter President Ambler will learn all about Richardson Car Dumpers through spending several weeks working on the installation of one at the Davidson Grain Co.'s plant in Hutchinson, Kan. This completed by mid-winter, Ex-Prexy Ambler will hie himself across the continent to the scale company's headquarters in Clifton, N. J., where neophyte Ambler will learn scale construction and repair through actual experience for about six months. After that Journeyman Ambler will become attached to the company's midwest office, located in Chicago, where he will work under Ingram H. Richardson, Manager, and Bill Hamilton, Asst. Mgr. Mr. Ambler's family will remain in their newly purchased home in Melrose Park, Ill.

AND IN CHRISTMAS MONTH, TOO

Crowding the Christmas holidays this year will be the birthdays of quite a few folks you know, including: William H. Williams, Froedtert Grain & Malting Co., Milwaukee, Dec. 5; Ralph Hetherington, Manager, Canadian Government Elevators, Ft. William, Dec. 15; Verlin W. Randall, Calvert Distilling Co., Elkridge, Md., Dec. 17; Vin Shea, Van Dusen-Harrington Co., Dec. 19; Henry Foth, Abilene (Kan.) Flour Mills Co., Dec. 23; H. C. Brand, Quaker Oats Co., Cedar Rapids, Dec. 27; and G. E. Brown, Westinghouse Elec. & Mfg. Co., Minneapolis, Dec. 31.

CHAPTER "GOING TO TOWN"

I think the Minneapolis SOGES Chapter is doing pretty good in the way of securing new members, and the chapter is going to town with attendance at its monthly meetings.—James Auld, Hales & Hunter Co., Chapter Secretary.

HARRY HANSON TO POST

Harry Hanson, for the past four years an assistant in the grain department of The Glidden Co., succeeds Louis Ambler, Jr., as elevator superintendent. Starting out in the elevator, Mr. Hanson arose to the position of assistant super. Transferred to the grain department, he gained a complete understanding in traffic problems through functioning as assistant. He has been actively assisting in purchasing soybeans as well, so he comes to his new position unusually qualified in knowing many phases of the operations of this end of the business before having to take hold of his new responsibilities. He has filed application for SOGES membership, according to Emil Buelens.

DON'T BE A "PUSHOVER" FOR A DUST EXPLOSION

Robertson Safety Ventilators beat a dust explosion to the punch . . . take the fire and frightfulness right out of it by relieving pressure . . . preventing *spread* of its destructive force.

Mounted on your elevator leg, Robertson Safety Ventilators provide continuous gravity action that vents dangerous fine dust, thus minimizing the hazard of *primary* explosions.

Write today for descriptive literature. Be on the Safe Side with Robertson Safety Ventilators.

H. H. ROBERTSON CO.

FARMERS BANK BUILDING PITTSBURGH, PA.